Bérénice **Batut**

Post-doctoral researcher · Bioinformatics & Training

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Education

Doctor in science
Lyon, France

Institut National des Sciences Appliquées
Oct. 2011 - Nov. 2014

- In silico experimental evolution
- Comparative genomics with phylogeny

Master degree
Lyon, France

Ecole Normale supérieure & University Claude Bernard
Oct. 2010 - Oct. 2011

- Theoretical computer science
- Complex system modelling

Master of Engineering
Lyon, France

Institut National des Sciences Appliquées
Oct. 2018 - Oct. 2011

- Bioinformatics and Modelling

Skills

Bioinformatics	HTS data analysis (RNA-Seq, metagenomics), comparative microbial genomics, phylogenetics
Software development	Python, R
Training	Data analysis, Galaxy, Software development, Software Carpentry instructor
Community	Galaxy Traing community manager, Mozilla Open Leader, Software Carpentry mentor
Languages	French (native), English, German (B2)

Experience

Post-doctoral researcher
Freiburg, Germany

Galaxy Team, Backofen Lab, University of Freiburg
Aug. 2016 - Today

- Data analysis of High-Throughput sequencing data (RNA-seq, metagenomics, etc)
- Training on Galaxy use, data analysis and software development
- Development and maintenance of the Training Material repository of the Galaxy Training Network
- Management of Galaxy Training community
- Member of the training group of de.NBI, the German Network for Bioinformatics infrastructure
- Development of command-line tools, tools for Galaxy, packages for BioConda
- Teaching to computer science master students

Post-doctoral researcher
Clermont-Ferrand, France

CIDAM, Université d'Auvergne
Jan. 2015 - Jun. 2016

- Development of metagenomics tools for Galaxy
- Data analysis of metagenomics data
- Teaching to bioinformatics undergrad students

PhD student & researcher
Lyon, France

Institut National des Sciences Appliquées
Oct. 2011 - Nov. 2014

- In silico experimental evolution
- Comparative genomics with phylogeny
- Teaching to bioinformatics undergrad students

Extracurricular Activity

Mozilla Open Leader program

Mozilla Foundation
Sep. 2018 - Today

- 14 week leadership development program
- Development of the Galaxy Training Instructor community

Mentor

THE CARPENTRIES   *Sep. 2018 - Today*

- Mentoring on community building and material development

Member

TRAINING GROUP (SIG3) OF THE GERMAN NETWORK FOR BIOINFORMATICS INFRASTRUCTURE   *Dec. 2016 - Today*

Instructor

THE CARPENTRIES   *March. 2016 - Today*

- Training for foundational computational and data science skills to researchers
- Unix Shell, Version Control with Git, Plotting and Programming with Python and R

Training & Teaching

2018

Oct. 18 - Feb. 19	**Introduction to data-driven life science**, Lectures and exercises to computer science master students	*Freiburg, Germany*
Dec. 18	**Galaxy RNA-seq data analysis**, 2 days workshop	*Freiburg, Germany*
Sep. 18	**Galaxy data analysis (introduction, ChiP-seq, RNA-seq)**, 5 days workshop	*Freiburg, Germany*
Jun. 18	**Galaxy Introduction and Galaxy for Training**, 2 2.5 h workshops at the Galaxy Community Conference	*Portland, US*
May. 18	**Genomics Data Carpentry (R, shell)**, 2 days workshop	*Dublin, Ireland*
Apr. 18	**Galaxy data analysis (introduction, metagenomics)**, 2 days workshop	*Cape Town, South Africa*
Feb. 18	**Galaxy data analysis (introduction, ChiP-seq, RNA-seq)**, 5 days workshop	*Freiburg, Germany*

2017

Oct. 17 - Feb. 18	**Introduction to data-driven life science**, Lectures and exercises to computer science master students	*Freiburg, Germany*
Oct. 17	**Software Carpentry Workshop (Shell, Python)**, 4 days workshop	*Heidelberg, Germany*
Sep. 17	**Galaxy data analysis (introduction, ChiP-seq, RNA-seq)**, 5 days workshop	*Freiburg, Germany*
Jun. 17	**Galaxy Metagenomics analyses and Galaxy for Training**, 2 2.5 h workshops at the Galaxy Community Conference	*Montpellier, France*
Mar. 17	**Software Carpentry Workshop (Shell, Python)**, 2 days workshop	*Freiburg, Germany*
Feb. 17	**Galaxy data analysis (introduction, ChiP-seq, RNA-seq)**, 5 days workshop	*Freiburg, Germany*
Jan. 17	**Galaxy RNA-Seq analysis**, 1 days workshop	*Mainz, Germany*
Jan. 17	**European Galaxy Developer Workshop**, 5 days workshop	*Strasbourg, France*

2016

Dec. 16	**Galaxy RNA-Seq analysis**, 2 days workshop	*Freiburg, Germany*
Dec. 16	**Docker at the FIARdom System Biology Developer Foundry**, 1 day workshop	*Frankfurt, Germany*
Sep. 16	**Galaxy data analysis (introduction, ChiP-seq, RNA-seq)**, 5 days workshop	*Freiburg, Germany*
Feb. 16	**Initiation to metagenomic data processing** , Lectures and exercises for Bioinformatics undergraduate students	*IUT, Aurillac, France*
Jan. 16	**Programming with BioPerl**, Lectures and exercises for Bioinformatics undergraduate students	*IUT, Aurillac, France*

2015

Feb. 15	**Initiation to metagenomic data processing** , Lectures and exercises to Bioinformatics undergraduate students	*IUT, Aurillac, France*
Jan. 15	**Programming with BioPerl**, Lectures and exercises to Bioinformatics undergraduate students	*IUT, Aurillac, France*

2011-2014

	Basis of computer sciences, Algorithmics, Programming in Java and Pascal, Exercises to undergraduate students	*INSA, Lyon, France*
	Basic programming in Python, Exercises to Bioinformatics & Modelling students	*INSA, Lyon, France*

Publications

Community-Driven Data Analysis Training for Biology.
Batut B, Hiltemann S, Bagnacani A, Baker D, Bhardwaj V, Blank C, Bretaudeau A, Brillet-Guéguen L, Čech M, Chilton J, Clements D, Doppelt-Azeroual O, Grüning B
Cell systems (June 2018). 2018

ASaiM: a Galaxy-based framework to analyze microbiota data
Bérénice Batut, Kévin Gravouil, Clémence Defois, Saskia Hiltemann, Jean-François Brugère, Eric Peyretaillade, Pierre Peyret
GigaScience (May 2018). Oxford University Press (OUP), 2018

The Galaxy platform for accessible, reproducible and collaborative biomedical analyses: 2018 update.
Afgan E, Baker D, Batut B, Beek M, Bouvier D, Cech M, Chilton J, Clements D, Coraor N, Grüning BA, Guerler A, Hillman-Jackson J, Hiltemann S, Blankenberg D
Nucleic acids research (May 2018). 2018

Environmental pollutant Benzo[a]Pyrene impacts the volatile metabolome and transcriptome of the human gut microbiota
C. Defois, J. Ratel, S. Denis, B. Batut, R. Beugnot, E. Peyretaillade, E. Engel, P. Peyret
Frontiers in Microbiology 8.AUG (2017). 2017

Four simple recommendations to encourage best practices in research software
Rafael C. Jiménez, Mateusz Kuzak, Monther Alhamdoosh, Michelle Barker, Bérénice Batut, Mikael Borg, Salvador Capella-Gutierrez, Neil Chue Hong, Martin Cook, Manuel Corpas, Madison Flannery, Leyla Garcia, Josep Ll. Gelpí, Simon Gladman, Carole Goble, Montserrat González Ferreiro, Alejandra Gonzalez-Beltran, Philippa C. Griffin, Bjoern Gruening, Jonas Hagberg, Petr Holub, Rob Hooft, Jon Ison, Daniel S. Katz, Brane Leskošek, Federico López Gómez, Luis J. Oliveira, David Mellor, Rowland Mosbergen, Nicola Mulder, Yasset Perez-Riverol, Robert Pergl, Horst Pichler, Bernard Pope, Ferran Sanz, Maria V. Schneider, Victoria Stodden, Radosław Suchecki, Radka Svobodová Vařeková, Harry-Anton Talvik, Ilian Todorov, Andrew Treloar, Sonika Tyagi, Maarten Gompel, Daniel Vaughan, Allegra Via, Xiaochuan Wang, Nathan S. Watson-Haigh, Steve Crouch
F1000Research 6 (June 2017) p. 876. F1000 Research, Ltd., 2017

Reductive genome evolution at both ends of the bacterial population size spectrum
B. Batut, C. Knibbe, G. Marais, V. Daubin
Nature Reviews Microbiology 12.12 (2014) pp. 841–850. 2014

In silico experimental evolution: a tool to test evolutionary scenarios.
B. Batut, D.P. Parsons, S. Fischer, G. Beslon, C. Knibbe
BMC bioinformatics 14 Suppl 15 (2013). 2013